

Exhibit 1

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
Alexandria Division**

UNITED STATES OF AMERICA,

Plaintiff,

v.

ZACKARY ELLIS SANDERS,

Defendant.

Case No. 1:20-cr-00143

Honorable T.S. Ellis, III

Trial: October 19, 2021

EXPERT DISCLOSURE REPORT OF PHILIP E. DEPUE

The following report is provided pursuant to Rule 16(b)(1)(C) of the Federal Rules of Criminal Procedure and the Discovery Order entered by this Court.

BACKGROUND AND QUALIFICATIONS

I am the Assistant Director of Digital Forensics of Sensei Enterprises, Inc. (hereafter "Sensei") a company which specializes in digital forensics and cybersecurity, based in Fairfax, Virginia. I hold a Bachelor of Science degree in Digital Forensic Science from Defiance College in Defiance, Ohio. I also maintain digital forensics certifications, including the SANS GIAC Certified Forensic Analyst (GCFA) and the Cellebrite Certified Operator (CCO). I have received training specific to computers and mobile devices/applications both on the job at Sensei and from organizations such as SANS and Cellebrite. I have been qualified as an expert digital forensic analyst in multiple jurisdictions, including but not limited to the Fairfax County Circuit Court, the Prince William County Circuit Court, the Loudoun County Circuit Court, and the United States Navy and Marine Corps Trial Judicial, Central Judicial Circuit. I have also testified as an

expert digital forensic analyst in multiple child pornography cases. My current curriculum vitae, identifying my professional experience, is attached as Exhibit A.

OBJECTIVE AND SCOPE OF ASSIGNMENT

Sensei was retained by KaiserDillon PLLC on December 8, 2020 to provide electronic evidence and expert digital forensic services on behalf of Mr. Sanders in the above-captioned case.

MATERIALS RELIED UPON

I utilized the following electronic evidence items and forensic hardware and software, and reviewed the following materials, to conduct the forensic analysis in this matter:

- Forensic collection of SanDisk Thumb Drive (1B1)
- Forensic collection of HP laptop (1B2)
- Forensic collection of Lexar Thumb Drive (1B3)
- Forensic collection of HP laptop (1B5)
- Forensic collection of HP laptop (1B6)
- Forensic mobile device collection of Apple iPad Pro (1B19)
- Forensic mobile device collection Apple iPad (1B22)
- Forensic mobile device collection Apple iPhone X (1B27)
- Cellebrite UFED Physical Analyzer
- X-Ways Software Technology AG's X-Ways Forensic edition
- Document Titled Government's Exhibit List
- Government file listings provided in discovery related to 1B1, 1B2, 1B3, 1B5, 1B6, and each of the alleged minor victims

DISCUSSION

During its investigation of Mr. Sanders, the Federal Bureau of Investigation ("FBI") seized various electronic and digital devices, pursuant to a search warrant. The charges in this case are based on files located on the following devices:

- SanDisk Thumb Drive (1B1);
- HP laptop (1B2);
- Lexar Thumb Drive (1B3);
- HP laptop (1B5);

- HP laptop (1B6);
- Apple iPad (1B19);
- Apple iPad (1B22); and
- Apple iPhone (1B27).

The primary focus of the FBI's investigation was on images, videos, and chat messages contained on the devices above. I was retained by KaiserDillon PLLC to review and evaluate the evidence obtained from the eight devices. I was also retained to parse and extract several different data types from the Apple devices (the two iPads, 1B19 and 1B22, and the iPhone, 1B27), in order to provide this data to counsel for further review. These data types included but was not limited to chat content, communications, images, videos, web browser history, and Apple Note entries. The data I parsed and extracted was not altered in any way during the analysis and is the same data the government would have analyzed to generate their reports.

This report provides an overview and summary of my key findings and conclusions, and the basis therefor. This report also provides relevant background information regarding the applications iMessage, Grindr, Telegram, Facebook Messenger, and Kik, and on screenshots. Unless otherwise stated, all of my opinions and conclusions are stated to a reasonable degree of certainty within the field of digital forensic analysis.

Applications

iMessage, Telegram, and Kik are free end-to-end encrypted messaging applications for mobile devices, including iPhones and iPads. These applications allow users to communicate through text chat messages and transmit image and video files.

Grindr is a location-based social networking and online dating application for gay, bi, trans, and queer people, which can be used on mobile devices, including iPhones and iPads. Grindr allows users to create personal profiles, and gives them the options to send text chat messages to other users and send image and video files.

Facebook Messenger is a messaging app and platform developed by Facebook, Inc., which can be used on mobile devices, including iPhones and iPads. Facebook allows users to create profiles, and they can send text chat messages, photos, and videos to other users.

Screenshots

Screenshots, screen captures, or screen grabs are digital images of a device's display. A screenshot is created by the software running on a device. Users can capture screenshots of their Apple iOS devices, such as iPads and iPhones, by simultaneously pressing the "home" button and the "lock" button, or, on newer devices, by pressing the "lock" button and the "volume up" button. When the user simultaneously presses those buttons, the screen of their Apple iPhone or iPad will flash and the picture will be stored in PNG format in the "camera roll."

Forensic exam of Apple devices (1B19, 1B22, and 1B27)

I reviewed forensic collections of Apple devices 1B19, 1B22, and 1B27 during the week of March 29, 2021, at FBI offices in Manassas Virginia. During that forensic exam, I reviewed the contents of the forensic collections of Apple devices 1B19, 1B22, and 1B27. I assisted the defense in parsing and extracting various data types, including chat messages, photos, videos, web browser history, and Apple Notes entries.

OPINIONS AND CONCLUSIONS

1. I located and observed the files that the government identified in file listings and its exhibit lists on the various devices, which the government alleges is contraband and/or that it has indicated it may introduce at trial.
2. I reviewed, and extracted data types from two Apple iPads (1B19 and 1B22) and the Apple iPhone (1B27). These data types included chat messages, photos, videos, web browser history, and Apple Notes entries.

3. The data types that I extracted from the two Apple iPads (1B19 and 1B22) and the Apple iPhone (1B27) that I provided to counsel for further review were not altered in any way during my analysis and is the same data the government would have analyzed to generate their reports. In other words, the data types that I parsed and extracted reflects the same data that was present on the seized devices.
4. The charged photos and videos found within the chat files I reviewed were interspersed with text and non-contraband photo content.

RIGHT TO SUPPLEMENT

I reserve the right to provide my opinion on facts and other matters arising subsequent to this Report, either prior to or during any hearing or trial in this action, including matters addressed in any expert disclosure provided by the government.

COMPENSATION

Sensei has charged KaiserDillon PLLC for my professional time at an hourly rate of \$325.00 and any additional time expended on this matter will be billed at the same rate. This rate is reasonable based on prevailing rates for experts in my field.

I declare under penalty of perjury under the Laws of the Commonwealth of Virginia that the foregoing is true and correct.



Philip DePue
Assistant Director of Digital Forensics
Sensei Enterprises, Inc.
3975 University Drive, Suite 225
Fairfax, Virginia 22030

Exhibit A

Philip E. DePue

Assistant Director of Digital Forensics

Sensei Enterprises, Inc.
3975 University Drive, Suite 225
Fairfax, VA 22030
pdepue@senseient.com

Profile

Philip DePue is the Assistant Director of Digital Forensics at Sensei Enterprises, Inc. Mr. DePue holds a degree in Digital Forensic Science with a minor in Criminal Justice from Defiance College, Defiance Ohio. Mr. DePue is a GIAC Certified Forensics Analyst (GCFA), as well being Comp TIA A+ certified. Before joining Sensei Enterprises, Mr. DePue worked with the Computer Forensics Division of the Lima, OH Police department.

Qualified as an expert in the following courts:

Fairfax County Juvenile and Domestic Relations District Court, Virginia

Loudoun County Circuit Court, Virginia

King George County Circuit Court, Virginia

Montgomery County Circuit Court, Virginia

Charlottesville Circuit Court, Virginia

U.S. Navy and Marine Corps Trial Judiciary, Central Judicial Circuit

Fairfax County Circuit Court, Virginia

Wythe County Circuit Court, Virginia

Prince William County Circuit Court, Virginia

Jefferson County Circuit Court, West Virginia

Representative recent work:

- Testified as an expert (in digital forensics) *State of West Virginia, Plaintiff v. Paul Raymond Sedlock, Defendant* (2021, Charles Town, WV). Testified regarding mobile phone data and text message recovery.
- Testified as an expert (in digital forensics) in *Casey D. Leslie, Plaintiff v. Michael A. Ramos, Defendant* (2021, Manassas, VA). Testified regarding forensic analysis of media files and their metadata.
- Testified as an expert (in digital forensics) *Commonwealth of Virginia, Plaintiff v. Anthony Edmonds, Defendant* (2021, Wytheville, VA). Case involving possession of child pornography and analysis of web browser artifacts from a computer system.
- Expert Witness (in digital forensics) in *Brightview Group, LP, Plaintiff v. Andrew M. Teeters, Ross T. Dingman and Monarch Communities LLC. Defendants* (2020, Fairfax, VA). Forensic preservation and analysis was performed and deposition taken.

- Testified as a fact witness in *Brightview Group, LP, Plaintiff v. Andrew M. Teeters, Ross T. Dingman and Monarch Communities LLC. Defendants* (2020, Fairfax, VA). Testified regarding steps taken to search webmail accounts and remove specified messages.
- Testified as an expert (in digital forensics) in *Christopher Anderson v. Fairfax County Schools* (2019, Falls Church, VA). Case involving potential computer and network policy violation.
- Testified as an expert (in digital forensics) in *David L. Pierce, Plaintiff v. Open System Science of Virginia, Inc., Defendant*, (2019, Fairfax, VA). Case involving web browser history, email communications and mobile devices.
- Testified as an expert (in digital forensics) in *United States v. FCC Sean MacWhinnie, USN*, (2019, Naval Station Norfolk, Norfolk, VA). Case involving social media data and network traffic logging.
- Testified as an expert (in digital forensics) in *Commonwealth of Virginia, Plaintiff v. James Fields, Defendant* (2018, Charlottesville, VA). Case involving analysis of data from a mobile phone.
- Testified as an expert (in digital forensics) in *Commonwealth of Virginia, Plaintiff v. John Darrell Willard, Defendant* (2018, Christiansburg, VA). Case involving possession of child pornography and analysis of web browser artifacts from a mobile phone.
- Testified as an expert (in digital forensics) in *Robert Hays, Plaintiff v. Charity White, Defendant* (2018, King George, VA). Case involving data extraction and recovery from a cell phone.
- Testified as an expert (in mobile phone forensics) in *Cesar Tapia, Plaintiff v. Jamie Carrillo, Defendant* (2018, Washington, DC). D.C. Department of Employment Services hearing involving data extraction and recovery from a cell phone.
- Testified as an expert (in digital forensics) in *Sisira Kumara Kumaragamage Don, Plaintiff v. Tera International Group, Inc., et al, Defendants* (2018, Leesburg, VA). Case involving email analysis.
- Testified as an expert (in digital forensics) in *Robert Evan Ellis, Plaintiff v. Christine Michelle Ellis, Defendant* (2018, Leesburg, VA). Case involving email analysis.
- Expert Witness (in digital forensics) in *Knowledge Link, Inc. vs. Melanie Downie, et al.* (2018, Fairfax, VA). Case involving data collected and searched from company server, laptop and email. Forensic analysis was performed and deposition taken.

- Testified as an expert (in computer forensics) in *Harold Scott Pio, Petitioner v. Tanya Leah Atkins, Respondent* (2015, Fairfax, VA.). Case involving data from social media.

Certifications/Credentials

GIAC Certified Forensic Analyst	2012-2021
Cellebrite Certified Operator	2018-2021

Professional Experience

Sensei Enterprises, Inc. Fairfax, Virginia Assistant Director of Digital Forensics	2012-Present
---	--------------

The responsibilities and experience surrounding the position of Assistant Director of Digital Forensics include, but are not limited to, the acquisition/preservation/analysis of electronic evidence, expert reporting/consulting as well as overseeing Sensei's other forensic examiners as they complete these types of tasks. Specifically, Philip DePue, is responsible for the acquisition and analysis of various digital mediums, which are provided to Sensei Enterprises, Inc., for personal or legal matters, by attorneys, law enforcement, or individuals.

Lima Police Department Lima, Ohio Digital Forensics Intern	2012
---	------

In the position of Digital Forensic Intern Mr. DePue was responsible for assisting in acquisition, review and analysis of various digital mediums related to cases being handled by the Lima Ohio Police Department.

Education

Defiance College Defiance, Ohio <i>Bachelor of Science in Digital Forensic Science, Minor in Criminal Justice</i>	2008-2012
--	-----------

SANS Institute Reston, Virginia <i>FOR518 Mac Forensic Analysis</i>	2016
Cellebrite Parsippany, NJ <i>Cellebrite Mobile Forensics Fundamentals – Online</i>	2017
Cellebrite Parsippany, NJ <i>Cellebrite Certified Operator (CCO) – Online</i>	2018
SANS Institute Reston, Virginia FOR500 Windows Forensics Analysis	2020